Exploratory querying of the Dutch Georegisters

with the purpose of further integration with other sources

by Stanislav Ronzhin

&

Rob Lemmens

Goals for today

- To introduce Exploratory Querying
- To present SPEX, a tool for Exploratory Querying in space and time
- To demonstrate SPEX in action

About myself..

Stanislav Ronzhin

- 2002-2007

- 2008 - 2013

http://frecom.ru/

- 2013-2015

A pathetic fallacy of RDF

http://bag.kadaster.nl/id/verblijfsobject/0546010000066356	http://bag.kadaster.nl/def#hoofdadres	http://bag.kadaster.nl/id/nummeraanduiding/0546200000066506
http://bag.kadaster.nl/id/verblijfsobject/0546010000066356	http://bag.kadaster.nl/def#identificatiecode	"546010000066356"
http://bag.kadaster.nl/id/verblijfsobject/0546010000066356	http://bag.kadaster.nl/def#ingangsdatum	"2014-01-15 00:00:00"
http://bag.kadaster.nl/id/verblijfsobject/0546010000066356	http://bag.kadaster.nl/def#ingangsdatum	"2014-12-23 00:00:00"
http://bag.kadaster.nl/id/verblijfsobject/0546010000066356	http://bag.kadas	
http://bag.kadaster.nl/id/verblijfsobject/0546010000066356	http://bag.kadas	
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http://bag.kadaster.nl/id/verblijfsobject/0546010000066356	http://www.oper	
http://bag.kadaster.nl/id/geovlak/0546100000040		
http://bag.kadaster.nl/id/geovlak/0546100000040		
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http://bag.kadaster.nl/id/verblijfsobject/0546010(		
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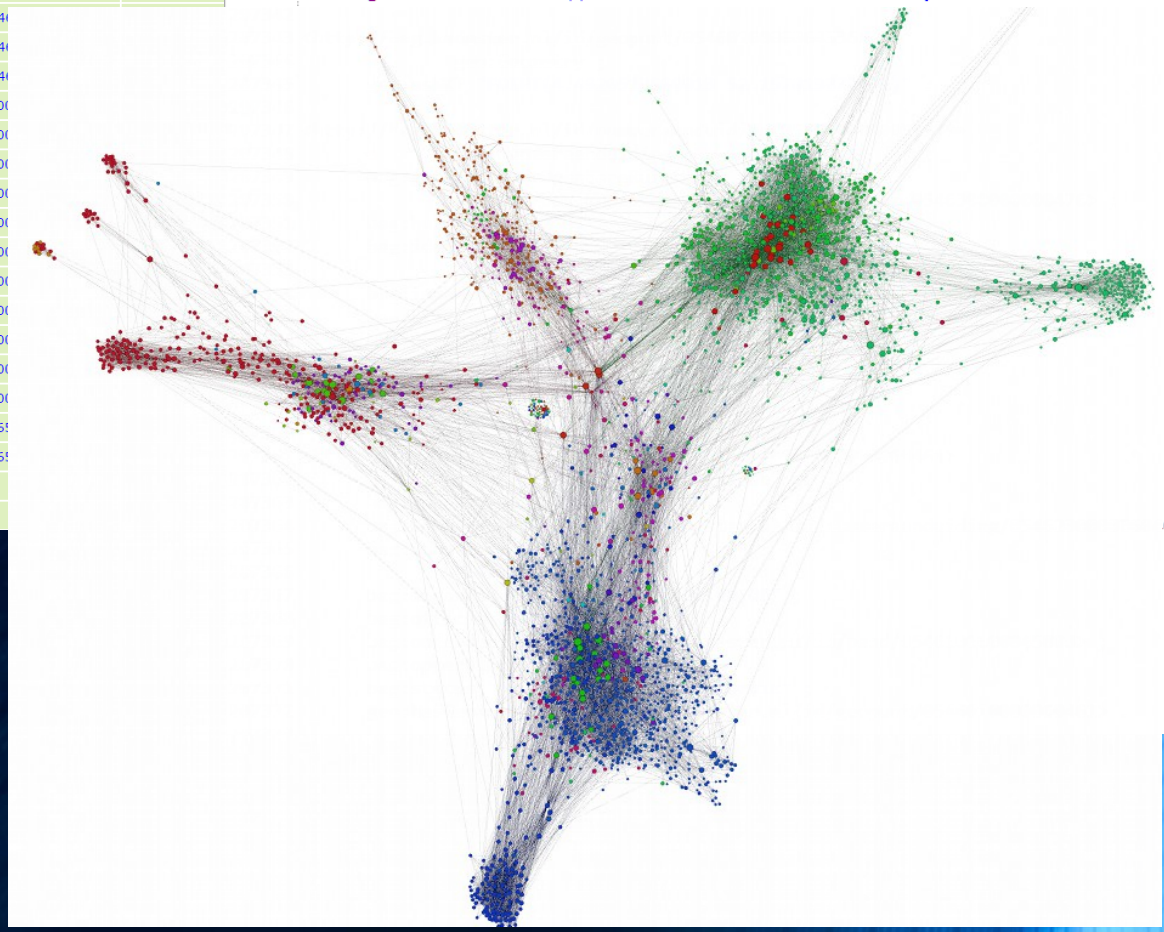
http://bag.kadaster.nl/id/verblijfsobject/0546010(		
http://bag.kadaster.nl/id/pand/05461000000426		
http://bag.kadaster.nl/id/pand/05461000000426		
_:b69		
_:b69		

```
207335 <http://bag.kadaster.nl/id/geopunt/0546010000010361>
207336       a       geo:Geometry ;
207337       geo:asWKT "POINT(4.4884836692629 52.15424662225)" .
207338
207339 <http://bag.kadaster.nl/id/geovlak/0546100000037837>
207340       a       geo:Geometry ;
207341       geo:asWKT "POLYGON((4.4908207602714 52.161484471351,4.4904915027953 52.161456163737,4.4905090134988 52.1
```

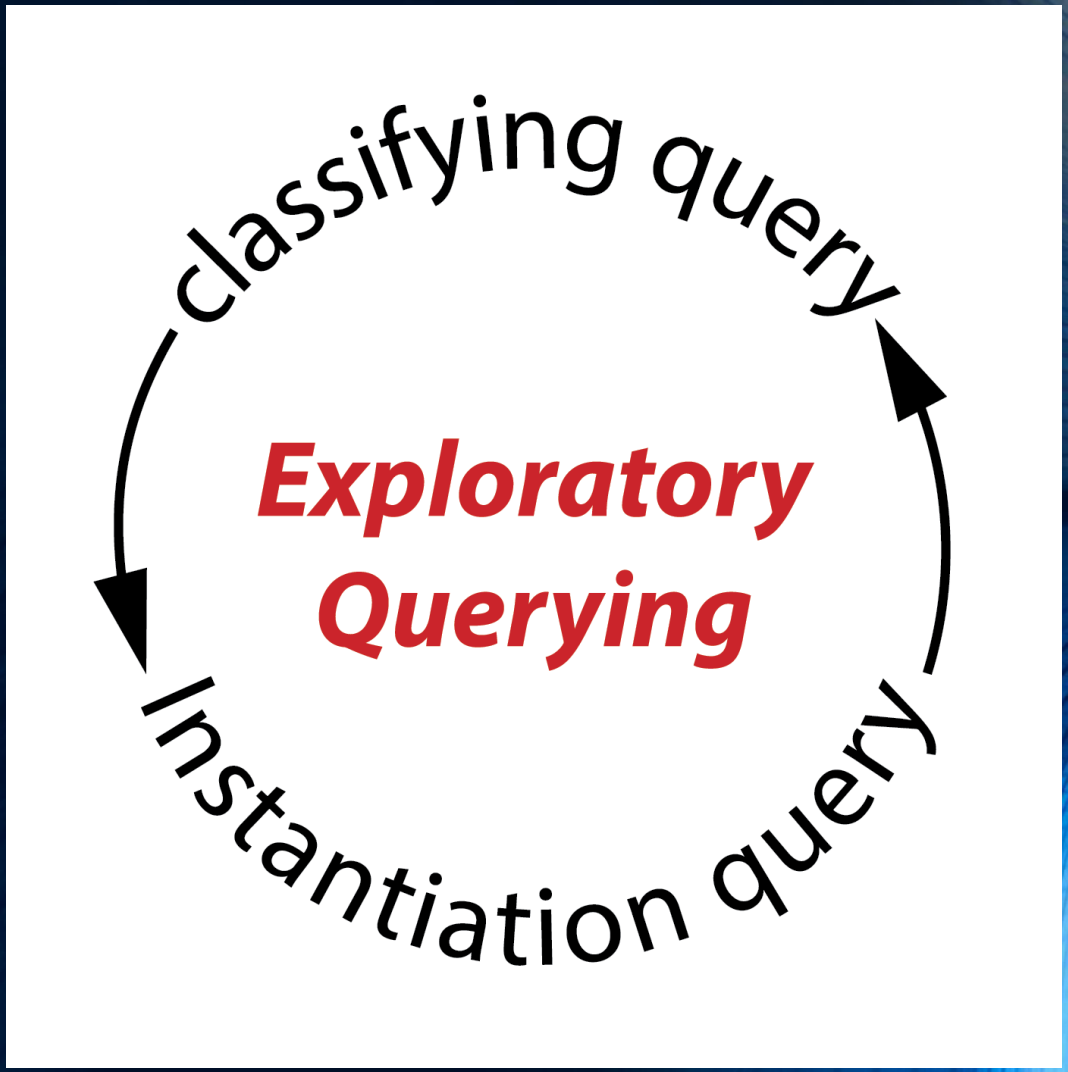


61> ;

Racefietsen example

- Frame material
- № of gears
- Brakes
- ……

Exploratory Querying



Exploratory Querying software

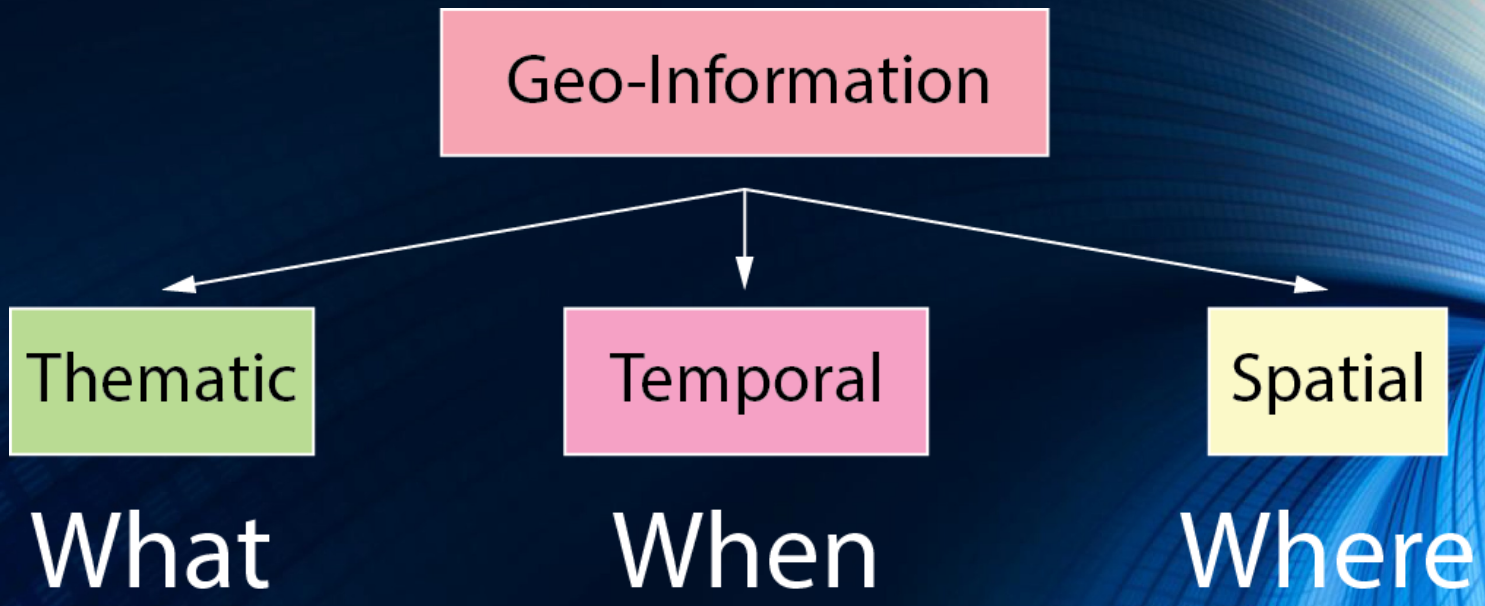
Faceted browsers:

- LESS
- RelFinder
- gFacet
- RDF Gravity
- Tabulator
- Rhizomer

Visual SPARQL clients:

- LodLive
- NITELIGHT
- IsaViz (SPARQLViz)
- ViziQuer
- OpenLink iSPARQL
- Sgvizler
- QueryVOWL
- Visualbox
- SparqlFilterFlow

Exploratory Querying of spatio-temporal data



Exploratory Querying of spatio-temporal data

bagGeopur
"POINT(4.4

bagWoor
bag:wo

bagPand:
bag:bouwjaar "1650";
bag:ingangsdatum "2010-08-26T00:00:00".

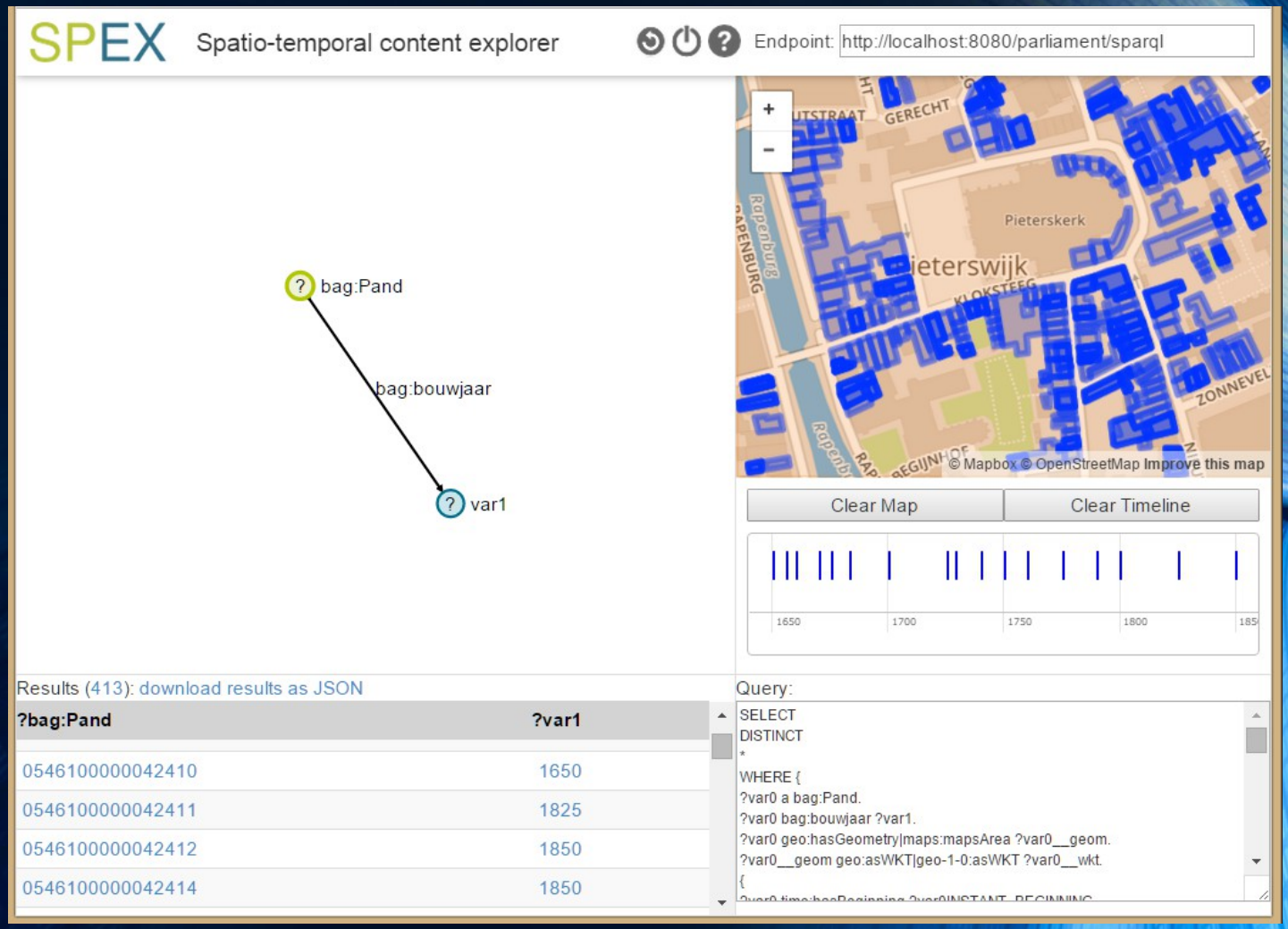
http://www.bp4mc2.org/

here

What

When

SPEX - Spatio-temporal Content Explorer



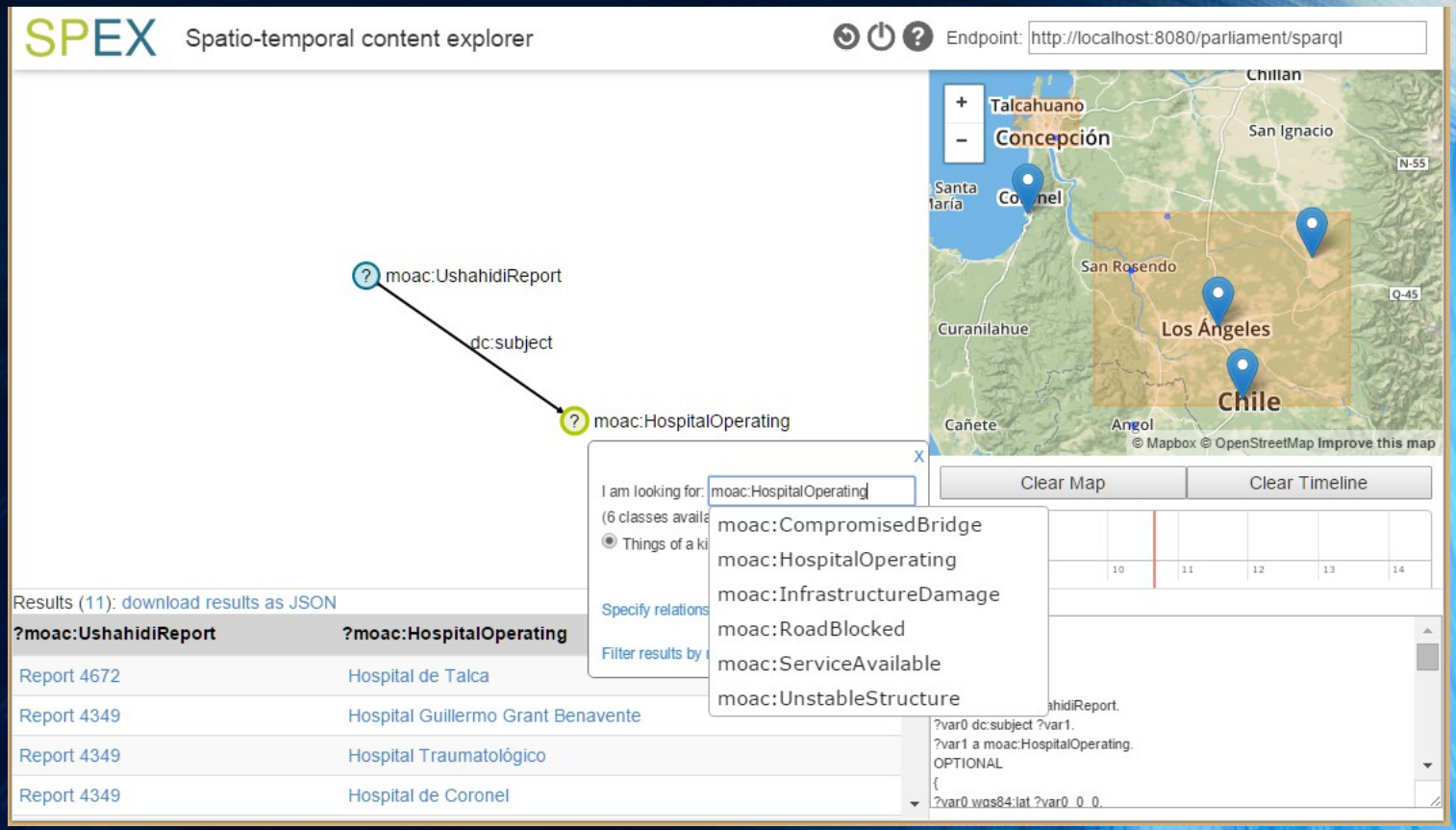
Scheider, S., Degbelo, A., Lemmens, R., van Elzakker, C., Zimmerhof, P., Kostic, N., Jones, J.,& Banhatti, G. (2015, in publishing). Exploratory querying of SPARQL endpoints in space and time. Semantic Web journal.

Who are the users?

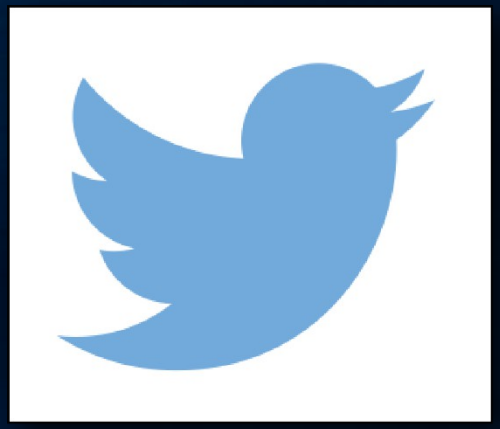
- Data managers, (geo) information professionals, non-experts (with a little help)
- Who want to understand the content of data for further use/integration
- Unexperienced semantic web/SPARQL users

Emergency management use case

- Browser for triplified and enriched Ushahidi data

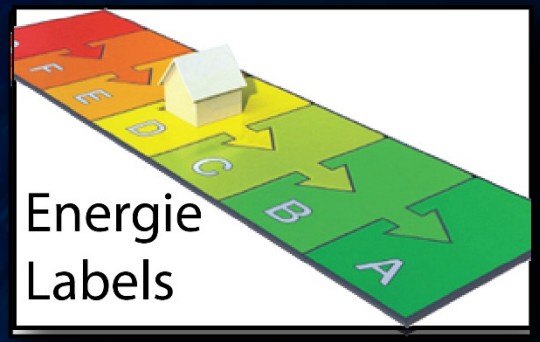


Use case: BAG + HuizenZoeker + Energie labels



cyclomedia

BAG



To sum up

- *Exploratory Querying* – simultaneously learning about the information needed while specifying it
- *SPEX* is a prototype tool for Exploratory Querying in space and time
- *For those* who want to know the content of data for further use/integration

Future development

- Develop workflow that would embed SPEX
- Named Graph support, k-Nearest Neighbor query, functionality for data extraction

Thank you!

Questions!?

Stanislav Ronzhin

StanRonzhin@gmail.com

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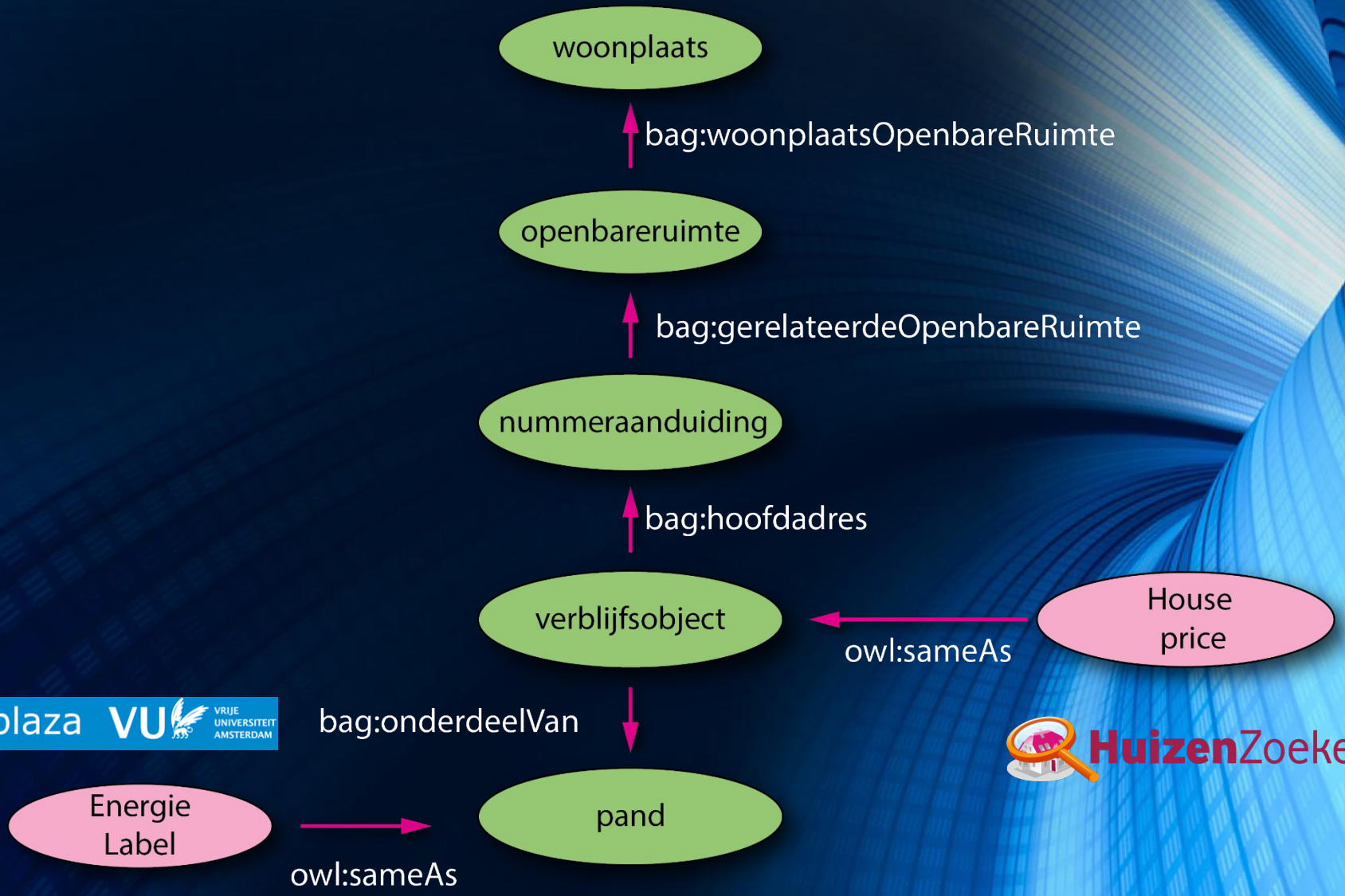
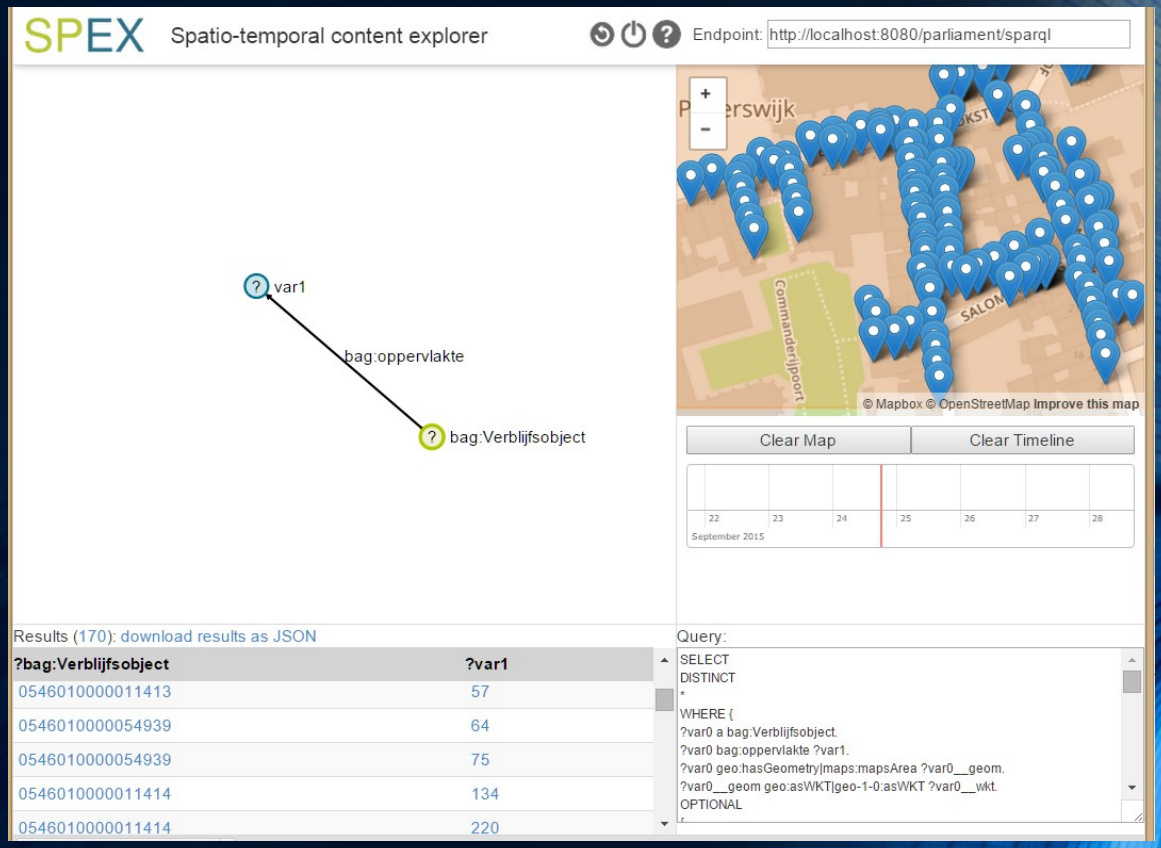


Geoplaza VU VRIJE UNIVERSITEIT AMSTERDAM

HuizenZoeker

Query to select all the verblijfsobjects with their area in a neighborhood of interest



Query to select all the verblijfsobjects with their addresses in a neighborhood